

IN THE CLAIMS

This listing of claims will replace all prior versions of claims in the application:

1. (Currently Amended) A secure communication system comprising:
a first network having a first security controller and a plurality of first network elements connected to ~~said the~~ first security controller;
a second network having a second security controller and a plurality of second network elements connected to ~~said the~~ second security controller;
a mobile device configured to request ~~user requesting~~ secure multimedia services while in the second network, ~~said the~~ first network being the ~~user's~~ home network of the mobile device;
~~said the~~ first security controller selecting one of the plurality of first network elements for coupling to the second network; and
~~said the~~ second security controller selecting one of the plurality of second network elements for dynamically coupling to the selected one of the plurality of first network elements; wherein:
~~said the~~ first and second security controllers pre-negotiate an internet protocol security association for the selected ones of the pluralities of first and second network elements, ~~and~~
~~wherein~~
the first and second security controllers establish the security associations association for the selected ones of the ~~said plurality~~ pluralities of first and second network elements and subsequently transmit, respectively, ~~said the~~ security ~~associations~~ association to ~~said the~~ first and second network elements; and
the transmission of the security association to the first and second network elements occurs dynamically on an as-needed basis in response to registration of the mobile device in the second network.
2. (Currently Amended) The secure communication system as claimed in claim 1, wherein ~~said dynamic coupling between said the~~ selected ones of the first and second pluralities of network elements ~~is~~ are dynamically coupled over an Internet Protocol connection.

3. (Cancelled)

4. (Cancelled)

5. (Cancelled)

6. (Original) The secure communication system as claimed in claim 1, wherein the plurality of first network elements includes a plurality of call state control function units.

7. (Original) The secure communication system as claimed in claim 1, wherein the plurality of second network elements includes a plurality of call state control function units.

8. (Original) The secure communication system as claimed in claim 1, wherein the secure communication system is a 3GPP multimedia communication system.

9. (Original) The secure communication system as claimed in claim 1, wherein the secure communication system is a UMTS (Universal Mobile Telecommunication System).

10. (Cancelled)

11. (Cancelled)

12. (Cancelled)

13. (Currently Amended) The method for secure communication as claimed in claim ~~12~~ 21, wherein there is further included the step of pooling by the home network each of ~~said~~ the plurality of ~~first~~ home network elements having a pre-negotiated security association.

14. (Currently Amended) The method for secure communication as claimed in claim ~~12~~ 21, wherein there is further included the step of pooling by ~~each of the plurality of visited networks~~ network the plurality of ~~second~~ visited network elements having a pre-negotiated security association.

15. (Currently Amended) The method for secure communication as claimed in claim ~~10~~ 21, wherein the step of dynamically coupling the designated home network element to the designated visited network element ~~pluralities of first and second network elements~~ includes the step of dynamically coupling over an internet protocol connection.

16. (Cancelled)

17. (Currently Amended) The method for secure communication as claimed in claim ~~10~~ 21, wherein there is further included the step of providing a call state control function unit for each of ~~said the~~ the plurality of ~~first~~ home network elements.

18. (Currently Amended) The method for secure communication as claimed in claim ~~10~~ 21, wherein there is further included the step of providing a call state control function unit for each of the plurality of ~~second~~ visited network elements.

19. (Currently Amended) The method for secure communication as claimed in claim ~~10~~ 21, wherein the communication system comprises a secure 3GPP multimedia communication system.

20. (Currently Amended) The method for secure communication as claimed in claim ~~10~~ 21, wherein the communication system comprises a secure universal mobile telecommunication system.

21. (New) A method for secure communication in a communication system, the communication system including a home network for a mobile device and a visited network for the mobile device, the home network having a home network security controller and a plurality of home network elements coupled to the home network security controller, and the visited network having a visited network security controller and a plurality of visited network elements coupled to the visited network security controller, the method comprising:

pre-negotiating security associations for the plurality of home network elements and the plurality of visited network elements;

registering a mobile device in the visited network;

selecting, by the visited network and in response to the registering step, a designated visited network element from the plurality of visited network elements;

selecting, by the home network and in response to the registering step, a designated home network element from the plurality of home network elements;

the home network security controller dynamically distributing, on an as-needed basis, a designated one of the security associations to the designated home network element;

the visited network security controller dynamically distributing, on an as-needed basis, the designated one of the security associations to the designated visited network element; and

dynamically coupling the designated home network element to the designated visited network element to provide secure multimedia services to the mobile device using the designated one of the security associations.

22. (New) The method for secure communication as claimed in claim 21, wherein:
selecting a designated visited network element from the plurality of visited network elements comprises selecting, by the visited network, a visited network element having a security association with the home network; and

selecting a designated home network element from the plurality of home network elements comprises selecting, by the home network, a home network element having a security association with the visited network.

23. (New) The secure communication system as claimed in claim 1, wherein the first and second security controllers are each configured to terminate the security association at the selected ones of the pluralities of first and second network elements in response to termination of the multimedia services.

24. (New) The method for secure communication as claimed in claim 21, further comprising terminating the designated one of the security associations at the designated home network element and at the designated visited network element, in response to termination of the multimedia services.

25. (New) A method for secure communication in a communication system, the communication system including a home network for a mobile device and a visited network for the mobile device, the home network having a home network security controller and a plurality of home network elements coupled to the home network security controller, and the visited network having a visited network security controller and a plurality of visited network elements coupled to the visited network security controller, the method comprising:

- pre-negotiating security associations for the plurality of home network elements and the plurality of visited network elements;

- maintaining, at the home network security controller, a pool of home network elements having respective pre-negotiated security associations, the pool of home network elements including a designated home network element having a designated security association;

- maintaining, at the visited network security controller, a pool of visited network elements having respective pre-negotiated security associations, the pool of visited network elements including a designated visited network element having the designated security association;

- in response to registration of the mobile device in the visited network, distributing the designated security association on an as-needed basis to the designated home network element and the designated visited network element; and

- providing a secure communication path between the designated home network element and the designated visited network element using the designated security association.

26. (New) The method for secure communication as claimed in claim 25, further comprising changing the designated security association when the mobile device registers in another network.

27. (New) The method for secure communication as claimed in claim 25, further comprising maintaining the secure communication path only for the duration that the mobile device is registered in the visited network.